and ſo occaſion remarkable Differences of the Lengths of Day and Night, in the ſame Revolutions, to Places under the ſame Parallels of Latitude; a whole Volume might be wrote in the Deſcription, if the Author would deſcend to Particulars.

VII. *A* Machine *for* ſounding the Sea *at any Depth, or in any Part, invented by Major* Wm. Cock *in the Year* 1738. *in a Voyage to* Georgia.

Preſented April 10. 1746.

THE Draught of this Machine is exhibited in TAB. II. *Fig.* 1. wherein

AAAA repreſent a Trunk of Timber, with a ſquare Hollow, thro' the Centre of which paſſes the ſquare Piece of Timber *BB*.

A Groove on each Side, in which are placed the two Pieces of Iron *CC*; the Foot of each reſting on the Pins *DD*, that paſs thro' the Trunk; the upper Part of the Irons are hooked to an iron Pin at *E*, which paſſes thro' the ſquare Piece *BB*; which Piece is hollowed between *H* and *H*, for the Hooks of the Irons *CC* to paſs up and down.

When the Weight *F* touches the Ground, the two Irons *CC* ſink the Trunk to *G*, which unhooks them at *E*; whereupon they fall off, and leave the Trunk at Liberty to float or riſe up again to the Surface.

A Machine of theſe Dimenſions, loaded with an iron Ball, *F*, of 12 Pounds Weight, being let down in

in Water 100 Fathoms deep, will go down to the Bottom, and the Trunk will return in one Minute and three Seconds.

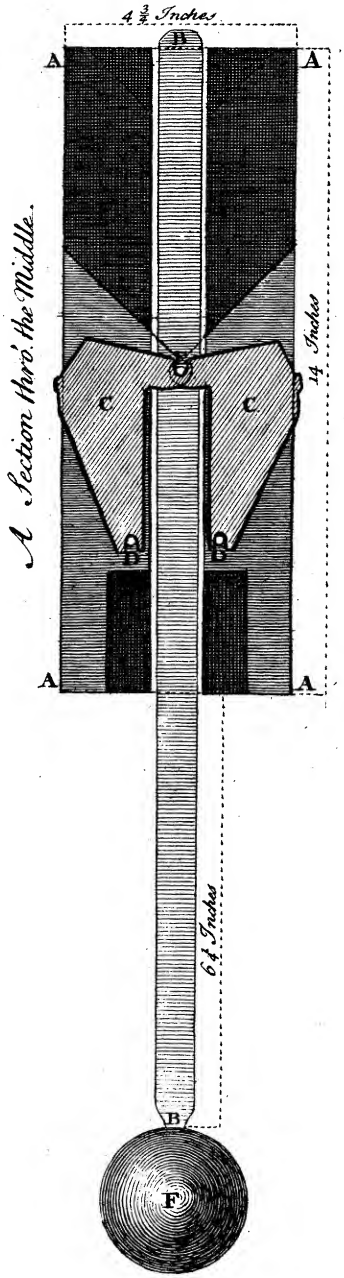
VIII. *A Letter from Mr.* J. Breintal *to Mr.* Peter Collinſon, *F. R. S. containing an Account of what he felt after being bit by a* Rattle-Snake.

Philadelphia, Feb. 10. 1746.

Read April 10. 1746. I AM much obliged to you for your kind Letter; but you injoin me a ſad Task. You muſt know then, that, on the 2d of laſt *May* in the Afternoon, I took a Turn down to the River; and meeting there ſome Company, we tarried about two Hours.

I hearing a Bell upon the Top of a ſteep Hill, which I knew to be the Cows of the People where I then quarter'd, and thinking to drive them home, it being almoſt in a ſtrait Line thither, went right up the Hill; and as it was ſtony, ſometimes I was ready to fall, ſo ſaved myſelf by my Hands, and got ſafe very near the Top; where either my Foot ſlipt, or the Stone under it gave Way, and brought me down upon my Knees. I laid my Hand on a broad Stone to ſtay myſelf; and, I ſuppoſe, the Snake lay on the oppoſite Side, and might be offended by ſome Motion of the Stone, ſo bit my Hand in an Inſtant, without any Warning or Sight; then ſlid under the Stones, and ſounded his Rattles.

Fig. 1. p. 146.



A Section thro' the Middle.

Phi

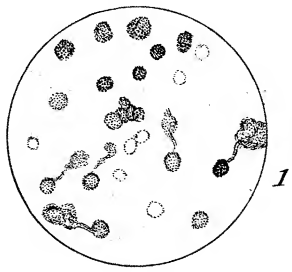
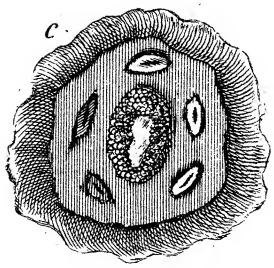


Fig. 2. p. 155.

Fig. 3.

p. 167.



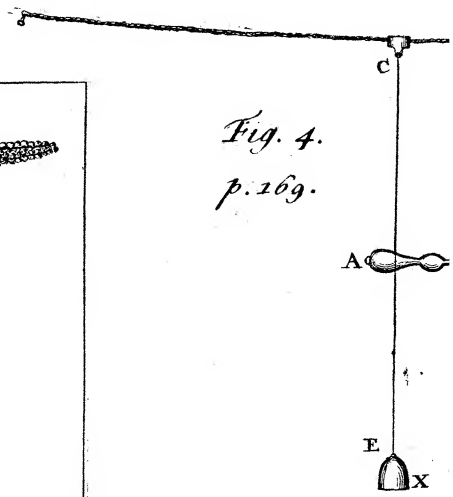


Fig. 4.
p. 169.

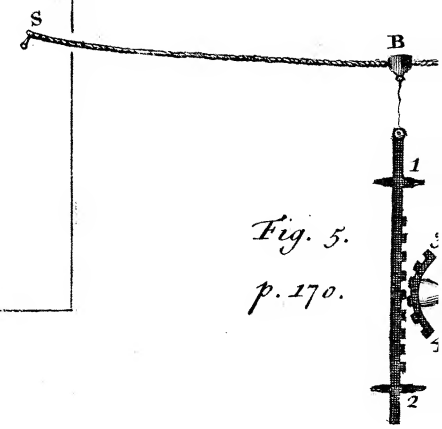
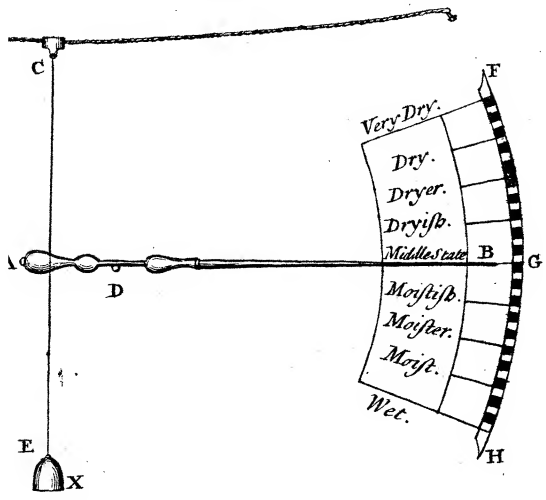


Fig. 5.
p. 170.

Philos. Trans. N°. 479. **TAB. II.**



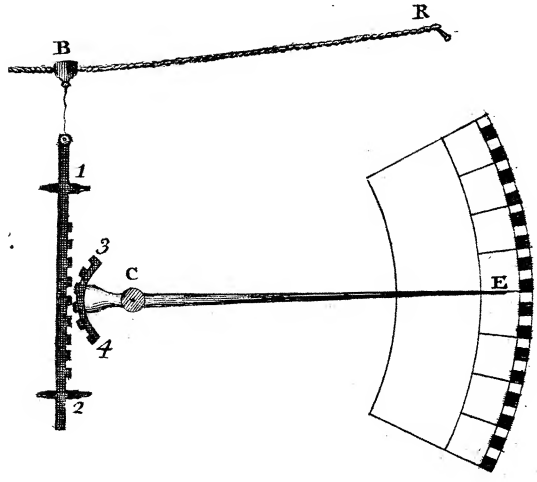


Fig 1 p 146

A Section thro the Middle

Fig 2 p 158

Fig 3 p 167

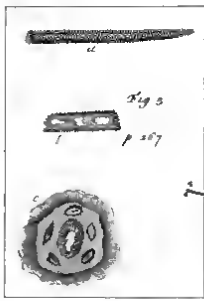


Fig 4 p 169

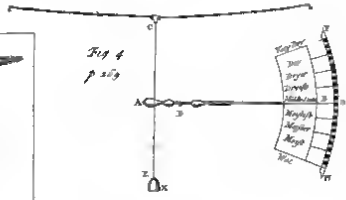
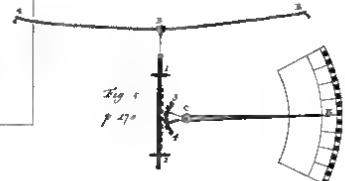



Fig 5 p 170